(January 2, 1996)
Traffic Signal Standards

Traffic signal standards shall be furnished and installed in accordance with the methods and materials noted in the applicable Standard Plans, pre-approved plans, or special design plans.

All welds shall comply with the latest AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. Welding inspection shall comply with Section 6-03.3(25)A Welding Inspection.

Hardened washers shall be used with all signal arm connecting bolts instead of lockwashers. All signal arm AASHTO M 164 connecting bolts shall be tightened to 40 percent of proof load.

Traffic signal standard types and applicable characteristics are as follows:

Type PPB Pedestrian push button posts shall conform to Standard Plan J-7a or to one of the following pre-approved plans:

Fabricator	Drawing No.
Northwest	NWS 2252 or 2401, both Rev. 8-25-95
Valmont	5000-3-RD
Ameron	3723

Type PS Pedestrian signal standards shall conform to Standard Plan J-7a or to one of the following pre-approved plans:

Fabricator	Drawing No.
Northwest	NWS 2252 or 2401, both Rev. 8-25-95
Valmont	5000-3-RD
Ameron	3723

Type I Type I vehicle signal standards shall conform to Standard Plan J-7a or to one of the following pre-approved plans:

Fabricator	Drawing No.
Northwest	NWS 2252 or 2401, both Rev. 8-25-95
Valmont	5000-3-RD
Ameron	3723

Type II Characteristics:

Luminaire mounting height	N.A.
Luminaire arms	N.A.
Luminaire arm length	N.A.
Signal arms	One Only
Signal arms length (max.)	16.7 m

Type II standards shall conform to one of the following pre-approved plans, provided all other requirements noted

herein have been satisfied. Maximum (x) (y) (z) signal arm loadings in cubic meters are noted after fabricator.

Fabricator-(x) (y) (z)	Drawing No.
Valmont-(57.00)	DB00308-Rev. B, Shts. 1, 2 & 3
Ameron-(50.64)	3722-1 Rev. A & 3722-2
Northwest-(54.87)	NWS 2324 or 2393, both Rev. 8-25-95

Type III Characteristics:

Luminaire mounting height	9.2 m, 10.7 m, 12.2 m, or 15.2 m
Luminaire arms	One Only
Luminaire arm type	Type 1
Luminaire arm length (max.)	4.9 m
Signal arms	One Only
Signal arm length (max.)	16.7 m

Type III standards shall conform to one of the following pre-approved plans, provided all other requirements noted herein have been satisfied. Maximum (x) (y) (z) signal arm loadings in cubic meters are noted after fabricator.

Fabricator-(x) (y) (z)	Drawing No.
Valmont-(57.00)	DB00308-Rev. B, Shts. 1, 2 & 3 and "J" luminaire arm
Ameron-(50.64)	3722-1 Rev. A & 3722-2 and "J" luminaire arm
Northwest-(54.87)	NWS 2324 or 2393, both Rev. 8-25-95

Type IV Type IV strain pole standards shall be consistent with details in the plans and Standard Plan J-7c or one of the following pre-approved plans:

Fabricator	Drawing No.
Northwest	NWS 2381 or 2396, both Rev. 8-25-95
Valmont	5000-4
Ameron	3650-A

Type V Type V combination strain pole and lighting standards shall be consistent with details in the plans and Standard Plan J-7c or one of the following pre-approved plans:

Fabricator	Drawing No.
Northwest	NWS 2381 or 2396, both Rev. 8-25-95
Valmont	5000-4
Ameron	3650-A

The luminaire arm shall be Type 1, 4.9 meters and the luminaire mounting height shall be 12.2 meters or 15.2 meters as noted in the plans.

Type SD — Type SD standards require special design. All special design shall be based on the latest AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and pre-approved plans. A 128.7 Kph wind loading shall be used. Complete calculations for structural design, including anchor bolt details, shall be prepared by a Professional Engineer, licensed under Title 18 RCW, State of Washington, in the branch of Civil or Structural Engineering or by an individual holding valid registration in another state as a civil or structural Engineer.

All shop drawings and the cover page of all calculation submittals shall carry the Professional Engineer's original signature, date of signature, original seal, registration number, and date of expiration. The cover page shall include the contract number, contract title, and sequential index to calculation page numbers. Two copies of the associated design calculations shall be submitted for approval along with shop drawings.

Details for handholes and luminaire arm connections are available from the Bridges and Structures Office.

Foundations for various types of standards shall be as follows:

Type PPB	As noted on Standard Plan J-7a.
Type PS	As noted on Standard Plan J-7a.
Type I	As noted on Standard Plan J-7a.
Type II	As noted in the Plans.
Type III	As noted in the Plans.
Type IV	As noted in the Plans and Standard Plan J-7c.
Type V	As noted in the Plans and Standard Plan J-7c.
Type SD	As noted in the Plans.